

PATENT

Atty. Docket No. YOR920030232US1 (8728-630)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Brian Paul Gaucher et al.

SERIAL NO.: Not Yet Assigned

FILED: Concurrently Herewith

DATED: December 9, 2003

FOR: APPARATUS AND METHODS FOR CONSTRUCTING
ANTENNAS USING VIAS AS RADIATING ELEMENTS FORMED
IN A SUBSTRATE

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to Applicant(s) duty of disclosure, the information listed in the attached form PTO-1449 is brought to the attention of the Examiner. Copies of the listed items are enclosed.

The citation of the listed items is not a representation that they constitute a complete or exhaustive listing of the relevant art or that the references are prior art.

CERTIFICATION UNDER 37 C.F.R. § 1.10

I hereby certify that this Information Disclosure Statement and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date December 9, 2003 in an envelope as "Express Mail Post Office to Addressee" Mail Label Number EV413369617US addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Frank V. DeRosa

The items listed are submitted in good faith, but are not intended to substitute for the Examiner's search. It is hoped, however, that in addition to apprising the Examiner of these particular items, they will assist in identifying fields of search and in making as full and complete a search as possible.

The filing of this information disclosure statement is not an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

- ☒ [X] This information disclosure statement is being filed within three (3) months of the filing date of this application.
- ☐ [] This information disclosure statement is being filed concurrently with the Request for Continued Examination (RCE) attached herewith
- ☐ [] This information disclosure statement is being filed within three (3) months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application.
- ☐ [] To the best of Applicant(s) knowledge, this information disclosure statement is being filed before the date of mailing of a first Office Action on the merits in connection with this case.
- ☐ [] Statement under 37 C.F.R. § 1.97(e):
I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this statement.
- ☐ [] Enclosed herewith is a petition under 37 C.F.R. §1.97(d)(ii).
 - ☐ [] Enclosed by check is the petition fee of \$130.00. 37 C.F.R. §1.17(i)(1))
- ☐ [] Please charge the \$130.00 petition fee to Deposit Account No. 50-0510/IBM (Yorktown Heights).

- ☐ Enclosed by check is the \$180.00 fee required by 37 C.F.R. §1.17(p).
- ☐ Please charge the \$180.00 fee required by 37 C.F.R. §1.17(p) to a Credit Card. Form PTO-2038 is enclosed.
- ☒ Please charge any deficiency as well as any other fee(s) which may become due under 37 C.F.R. §1.16 and/or §1.17 at any time during the pendency of this application, or credit any overpayment of such fee(s) to Deposit Account 50-0510/IBM (Yorktown Heights). Also, in the event any extensions of time for responding and/or a petition under 37 C.F.R. §1.17(i)(i) are required for the pending application(s), please treat this paper as a petition to extend the time and/or enter this Information Disclosure Statement as required and charge Deposit Account No. 50-0510/IBM (Yorktown Heights) therefor. TWO (2) COPIES OF THIS SHEET ARE ENCLOSED.

The claims of the application as now presented are believed to patentably distinguish over the prior art and to be in condition for allowance. Early and favorable consideration of the case is respectfully requested.

Respectfully submitted,



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| Form PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) | ATTY. DOCKET NO. | SERIAL NO. |
| | YOR920030232US1 (8728-630) | Not Yet Assigned |
| | APPLICANT | |
| | Brian Paul Gaucher et al. | |
| | FILING DATE | GROUP ART UNIT |
| | Concurrently Herewith | |

| U.S. PATENT DOCUMENTS | | | | | | | |
|--------------------------|--|--------------------|----------|---------|-------|----------|-------------------------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
| | | 5,986,610 | 11/16/99 | Miron | 343 | 702 | 6/15/98 |
| FOREIGN PATENT DOCUMENTS | | | | | | | |
| | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |
| | | | | | | | YES NO |
| | | | | | | | |

| OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | C. Chaun-Li et al., <u>Radiation by a Probe Through a Substrate</u> , IEEE Transactions on Antennas and Propagation, Vol. 34, No. 9, September 1986, pp. 1080-1091. |
| | | | R.C. Hall et al., <u>Vertical Monopoles Embedded in a Dielectric Substrate</u> , IEEE Proceedings, Vol. 136, No. 6, December 1989, pp. 462-468. |
| | | | Zhongxiang Shen et al., <u>Input Impedance of a Multilayer Insulated Monopole Antenna</u> , Antennas and Propagation Society International Symposium, Vol. 1, July 1996, pp. 318-321. |
| | | | D.M. Pozar, <u>Performance of Infinite Array of Monopoles in a Grounded Dielectric Slab</u> , IEEE Proceedings, Vol. 137, No. 2, April 1990, pp. 117-120. |
| | | | M.A. Morgan, et al., <u>Eigenmode Analysis of Dielectric Loaded Top-Hat Monopole Antennas</u> , IEEE Transactions on Antennas and Propagation, Vol. 42, No. 1, January 1994, pp. 54-61. |
| | | | K.W. Leung, et al., <u>Simple Formula for Analysing the Centre-Fed Hemispherical Dielectric Resonator Antenna</u> , Electronics Letters, Vol. 33, No. 6, March 1997, pp. 440-441. |
| | | | R.K. Mongia, et al., <u>Electric-Monopole Antenna Using a Dielectric Ring Resonator</u> , Electronics Letters, Vol. 29, No. 17, August 1993, pp. 1530-1531. |
| | | | K.W. Leung, <u>General Solution of a Monopole Loaded by a Dielectric Hemisphere for Efficient Computation</u> , IEEE Transactions on Antennas and Propagation, Vol. 48, No. 8, August 2000, pp. 1267-1268. |
| EXAMINER | | | DATE CONSIDERED |
| * EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | | | |

(Form PTO-1449 [6-4])